

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 May 2001 (10.05.2001)

PCT

(10) International Publication Number
WO 01/33511 A3

(51) International Patent Classification⁷: **G06T 17/00, A61F 2/02**

(21) International Application Number: **PCT/US00/41821**

(22) International Filing Date:
3 November 2000 (03.11.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/163,323 3 November 1999 (03.11.1999) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

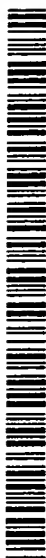
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
20 December 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 01/33511 A3

(54) Title: **SYSTEM AND METHOD FOR PRODUCING A THREE-DIMENSIONAL MODEL**

(57) Abstract: A shape of a medical device to be implanted into a subject is verified by acquiring a plurality of inter-fiduciary marker dimensions from the subject. Three-dimensional image data of the markers and a tissue of interest, included in the subject, is obtained. Respective measurements between the fiduciary markers around the subject and in the image data are confirmed. The tissue of interest and the fiduciary markers are identified in the image data. Points of the tissue of interest and the fiduciary markers are rendered as a 3-dimensional surface representation. A 3-dimensional model of the tissue of interest and the fiduciary markers is generated as a function of the surface representation. A shape of the medical device to be implanted into the subject is determined as a function of the 3-dimensional model.

INTERNATIONAL SEARCH REPORT

National Application No
PCT/US 00/41821

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06T17/00 A61F2/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06T A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZACHOW S ET AL: "Optimized arrangement of osseointegrated implants: a surgical planning system for the fixation of facial prostheses" PROCEEDINGS OF 13TH INTERNATIONAL SYMPOSIUM ON COMPUTER ASSISTED RADIOLOGY AND SURGERY (CARS'99), PARIS, FRANCE, 23-26 JUNE 1999, pages 942-946, XP001011404 1999, Amsterdam, Netherlands, Elsevier Science, Netherlands ISBN: 0-444-50290-4 sections 3, 3.1-3.3	1-4,6,7, 10, 13-15,17
A	---	5,8,9, 11,12,19
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

3 July 2001

Date of mailing of the international search report

13/07/2001

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I. International Application No
PCT/US 00/41821

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NOORDMANS H J ET AL: "Localisation of subdural EEG electrode bundles in an interactive volume rendering framework" MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI'99. SECOND INTERNATIONAL CONFERENCE. PROCEEDINGS (LECTURE NOTES IN COMPUTER SCIENCE VOL.1679), CAMBRIDGE, UK, 19 - 22 September 1999, pages 734-741, XP001011391 1999, Berlin, Germany, Springer-Verlag, Germany ISBN: 3-540-66503-X	1-4,6,8
A	abstract sections 1, 1.1, 2	10,11, 13-15,17
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Y		10,13, 14,17
A	the whole document	4-9,11, 12,15, 16,18-20
Y	GB 2 324 470 A (CUSTOMFLEX LIMITED) 28 October 1998 (1998-10-28) page 1, line 1 -page 2, line 14	10,13, 14,17

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 00/41821

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2324470 A	28-10-1998	NONE	